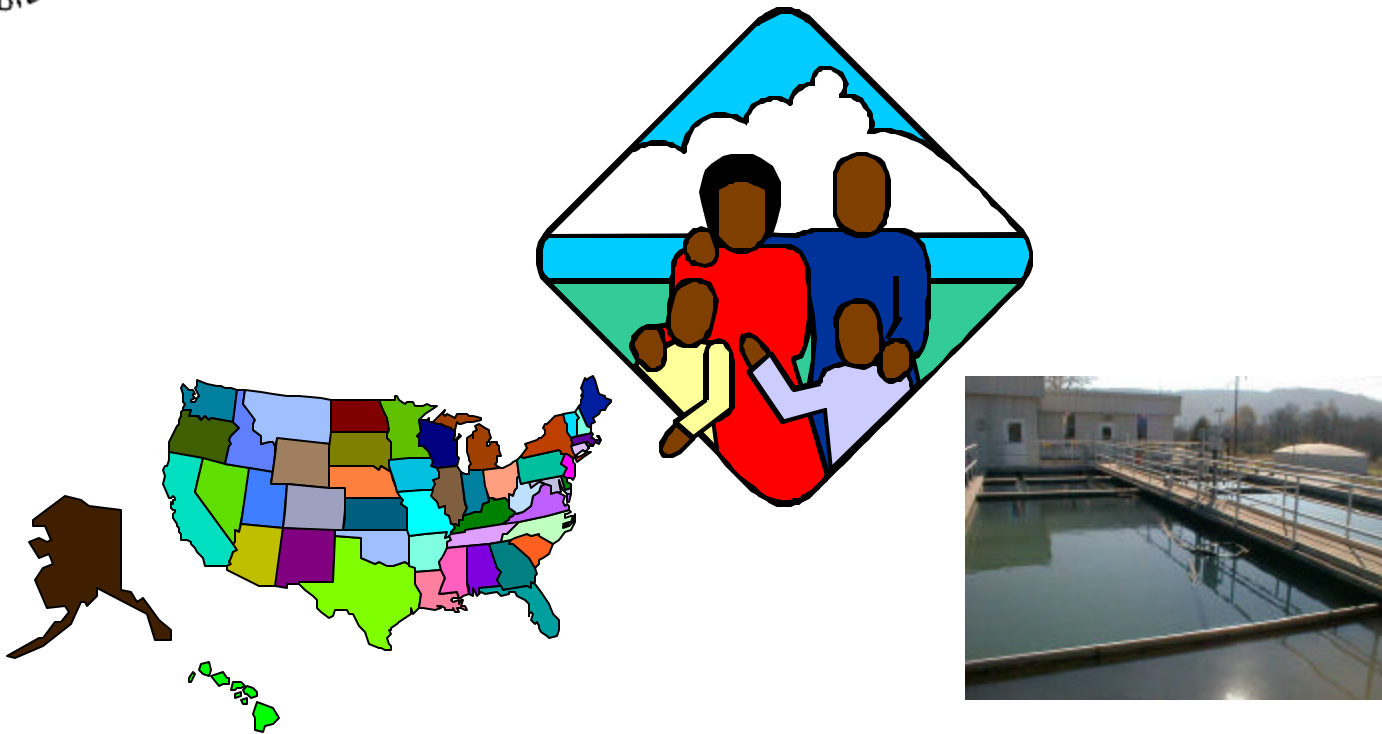




Capacity Development & Operator Certification

Discussion Forum

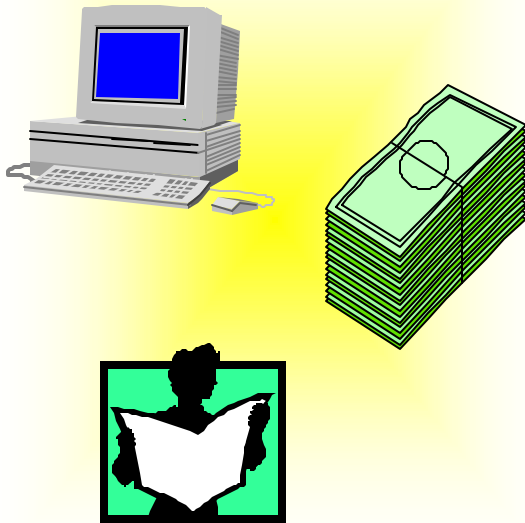


**Drinking Water Utilities Team
Drinking Water Protection Division
Office of Ground Water & Drinking Water**

**ASDWA Member Meeting
March 15, 2001**

Drinking Water Protection Division

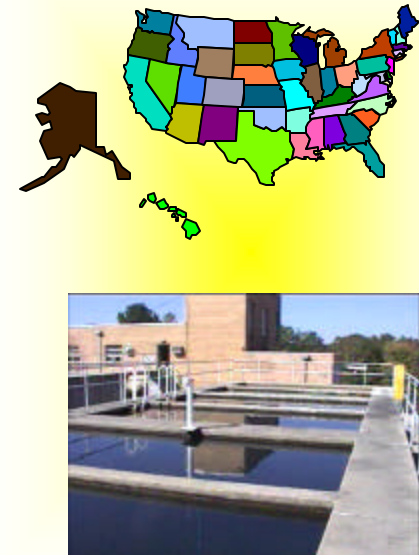
INFRASTRUCTURE



PREVENTION

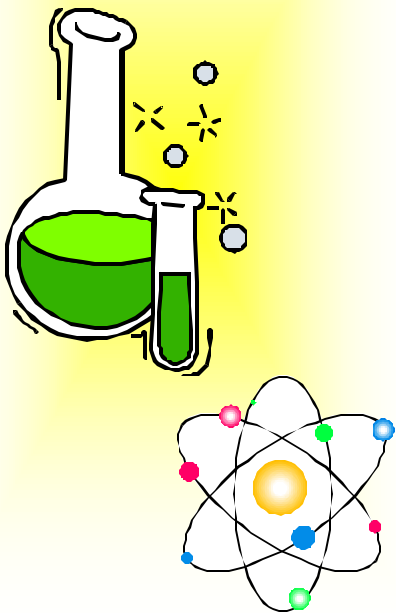


PROTECTION

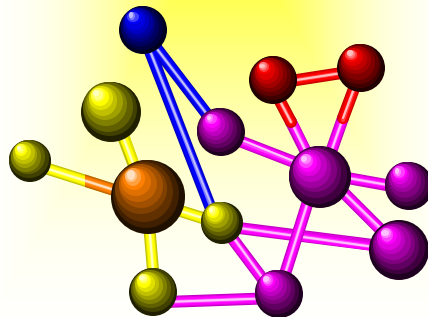
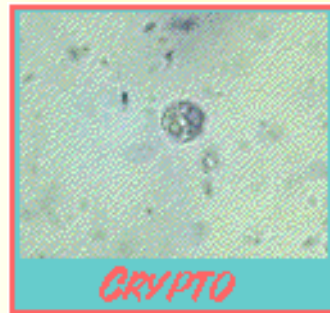


Drinking Water Protection Branch

Chemical/Radiological Implementation Team



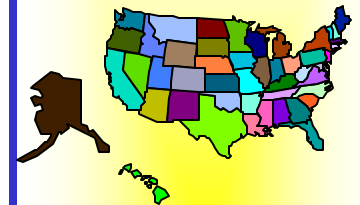
M/DBP Implementation Team



Utilities Team



Implementation Oversight Team



Drinking Water Utilities Team

Mission



Enhance Public Health Protection by Assisting Water Systems to Develop & Maintain the Technical, Financial, and Managerial Capacity They Need to Consistently Deliver Safe and Affordable Drinking Water.

Drinking Water Utilities Team

Functions

- *Tools for Utilities*
- *Support for States*
- *Foundational Studies*
- *Manage Earmarks*
- *Outreach*



Tools for Systems

BROCHURES

- Technical & Financial Assistance
- SDWA Regulations Overview

SIMPLE TOOLS FOR EFFECTIVE PERFORMANCE (STEP)

- TCR
- Arsenic
- DBP
- Asset Management
- Strategic Planning

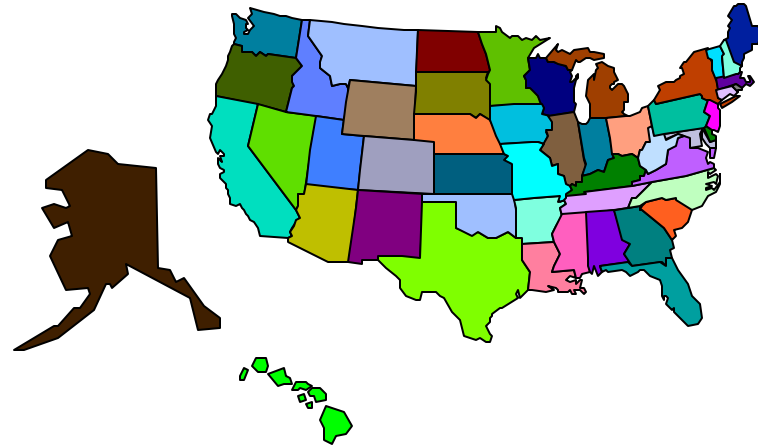
CASE STUDIES

TRIBAL TOOLS

- Capacity Development Brochure
- O&M Card File
- Tribal CD Handbook



Support for States



Capacity Development

- Summary of Strategies
- Case Studies
- ASDWA Newsletter
- Regional Meetings
- DWA Training Courses
 - Introduction
 - Financial Capacity
 - Technical Capacity
 - Managerial Capacity
 - Ratemaking & Affordability
 - Using Sanitary Surveys

Operator Certification

- Program Review
- Training Grants
- How to Validate an Exam

Foundational Studies



**Characterization &
Benchmarking of Industry
Structure**

Economies of Scope & Scale

Multiple Barriers Paper

Manage Earmarks

Technology Assistance Centers

Montana State University

Western Kentucky University

University of Missouri at Columbia

University of Alaska SE at Sitka

Mississippi State University

University of New Hampshire

Pennsylvania State University

University of Illinois

(California State University at Sacramento)

(Charles County Community College)



Water Systems Council

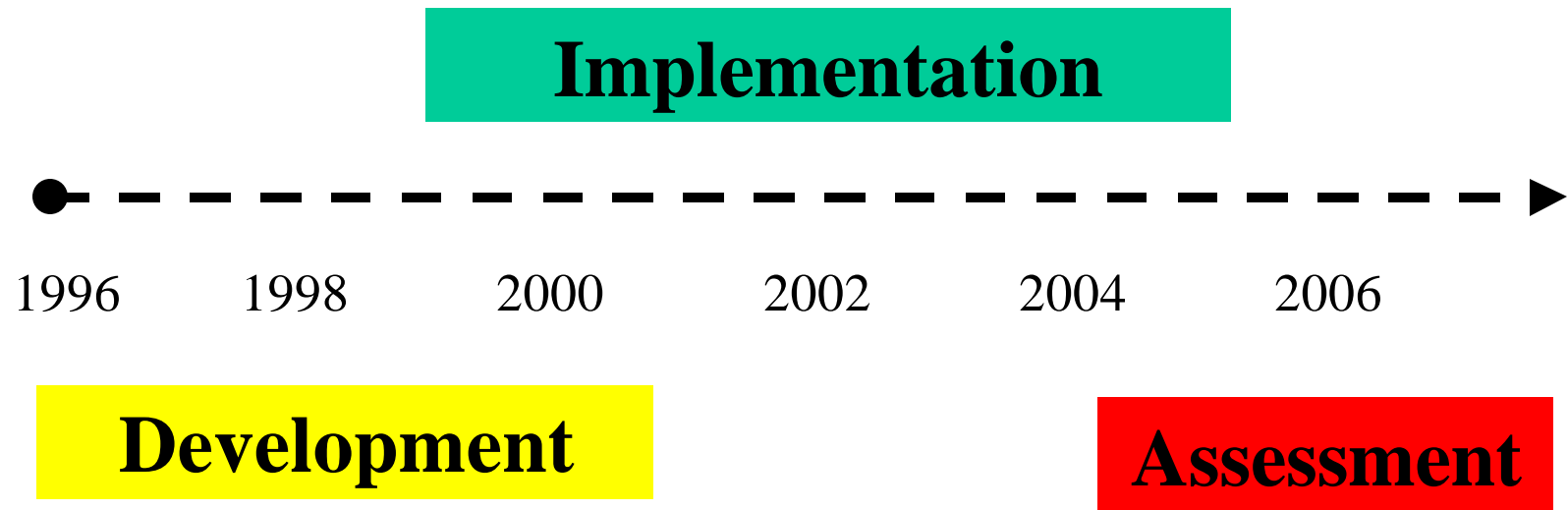
NRWA & RCAP (advise)

Outreach and Training

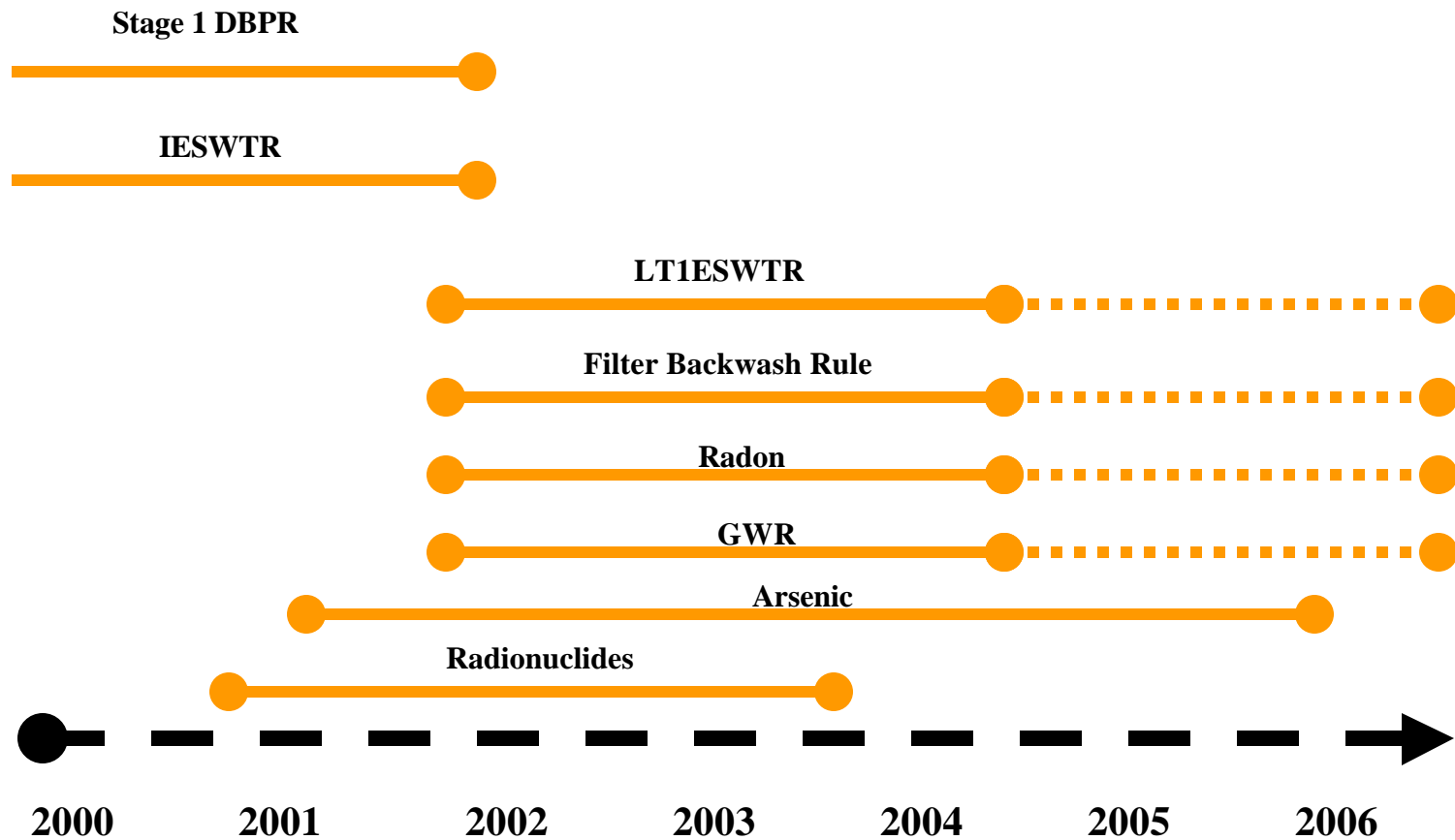
- Speeches
- Papers
- Web Page
- System Visits
- State Visits

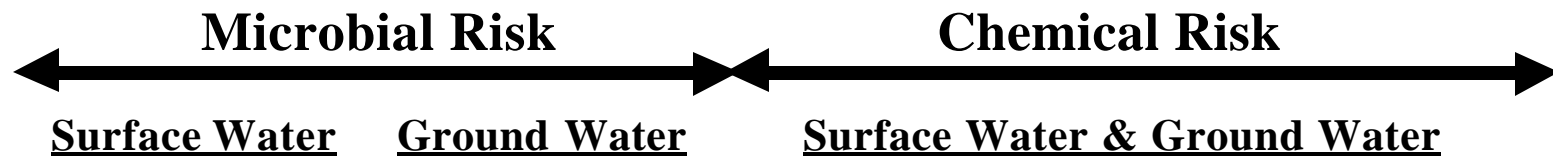


From Vision to Reality...Where Are We?



SDWA Compliance

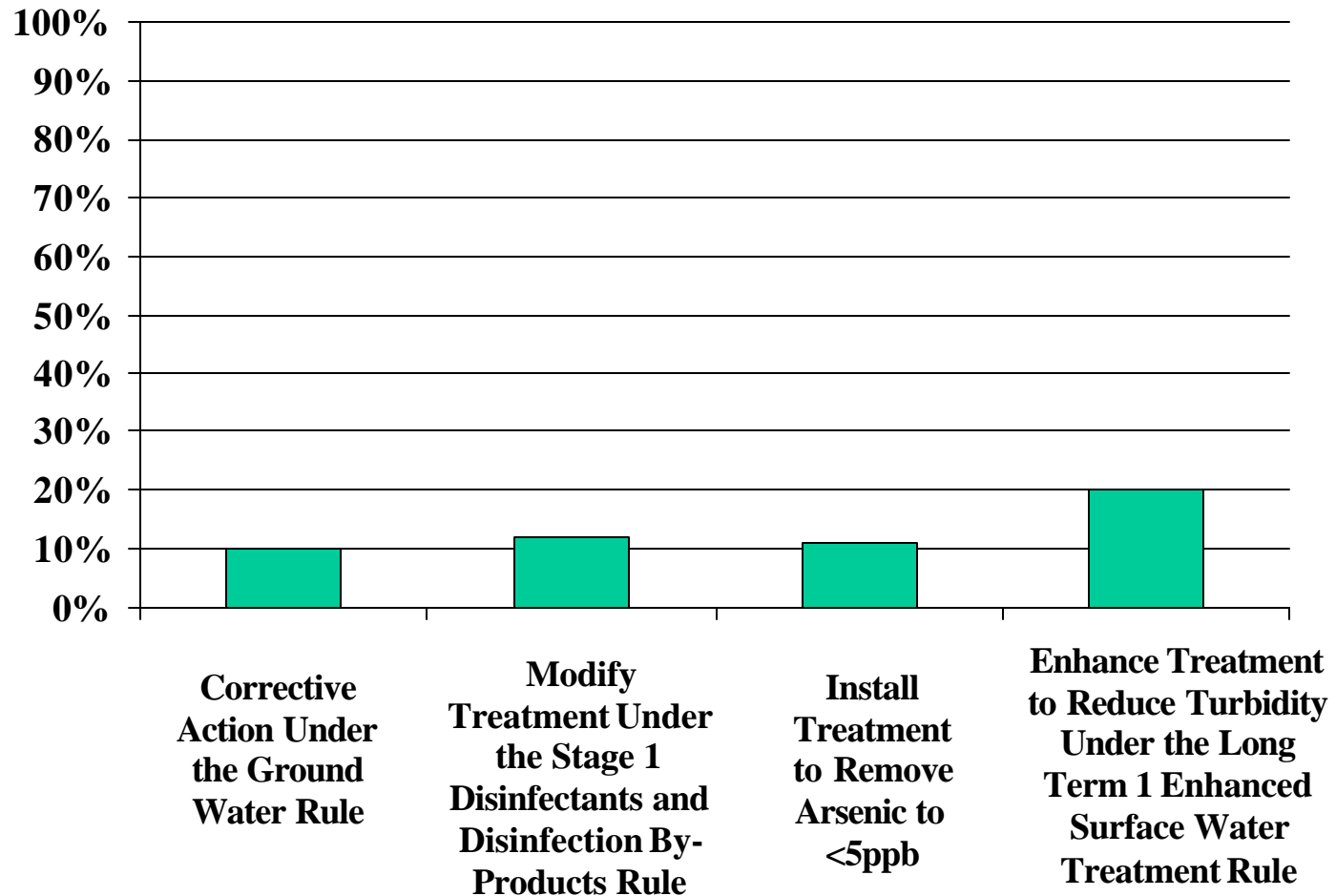




Long Term 2 Enhanced Surface Water Treatment Rule	
Long Term 1 Enhanced Surface Water Treatment Rule	
Interim Enhanced Surface Water Treatment Rule	
Surface Water Treatment Rule	Ground Water Rule
Total Coliform Rule	

Stage 2 Disinfectants / Disinfection By-Products Rule
Revised Arsenic Rule
Radon Rule
Revised Radionuclides Rule
Stage 1 Disinfectants / Disinfection By-Products Rule
Lead and Copper Rule
Phase 1/2/5 Rules
Fluoride Rule
1976 Radionuclides Rule
1975 Arsenic Rule

**Only a Small Percentage of Systems Will Need To
Take Major Action To Comply With New Rules**



Water Systems

A Strategic, Functional Model



**Source
Water**



Treatment



**Storage &
Distribution**



**Retail
Services**

Drinking Water Industry

Strategic Imperatives

- **Infrastructure Repair & Replacement**
- **Competitive Pressure**
- **Source Water Protection & Supply**
- **Public Expectations**
- **SDWA Compliance**

Industry Assets and Needs

1999 \$



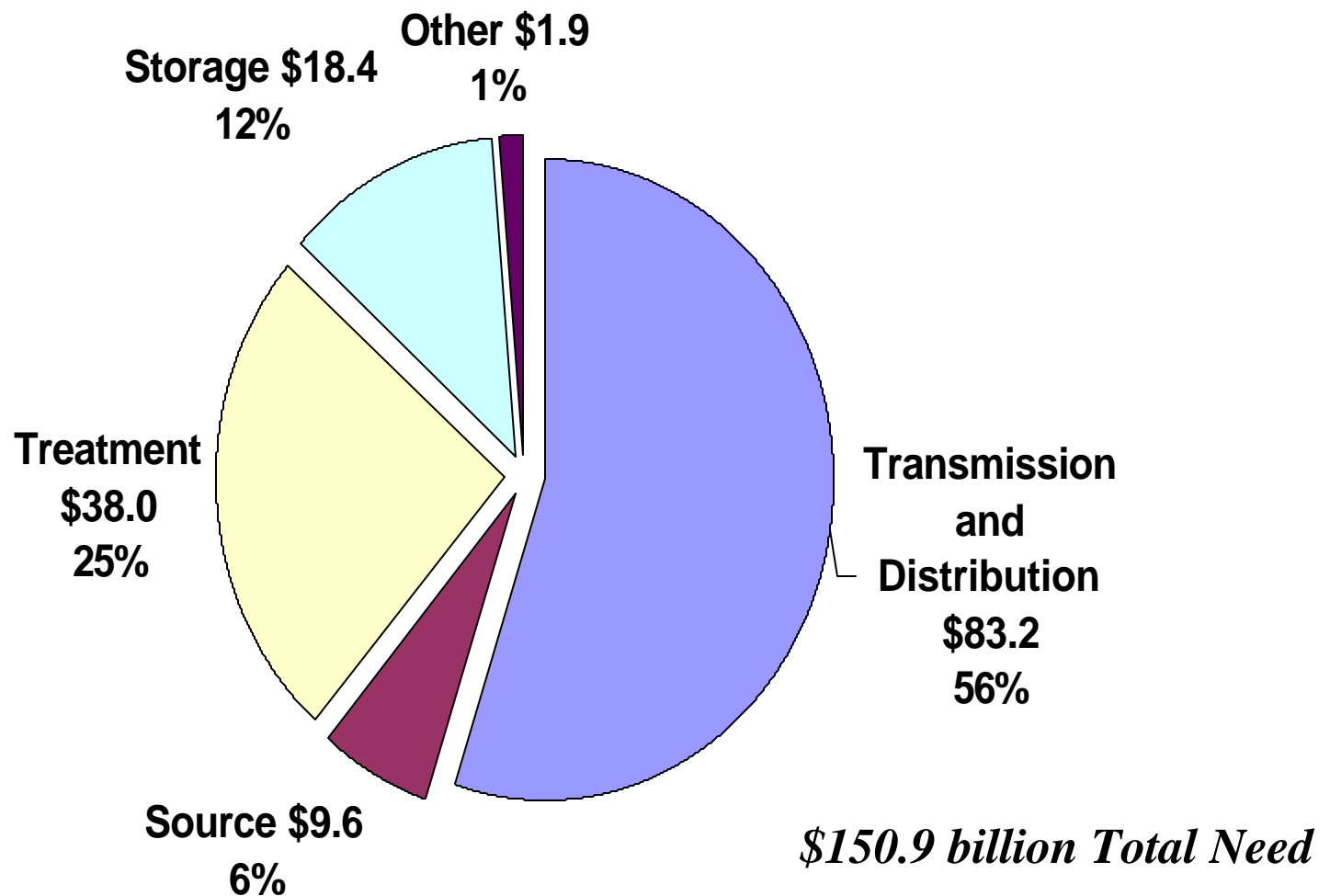
Assets \$144.2 B



20-Year Need \$150.9 B

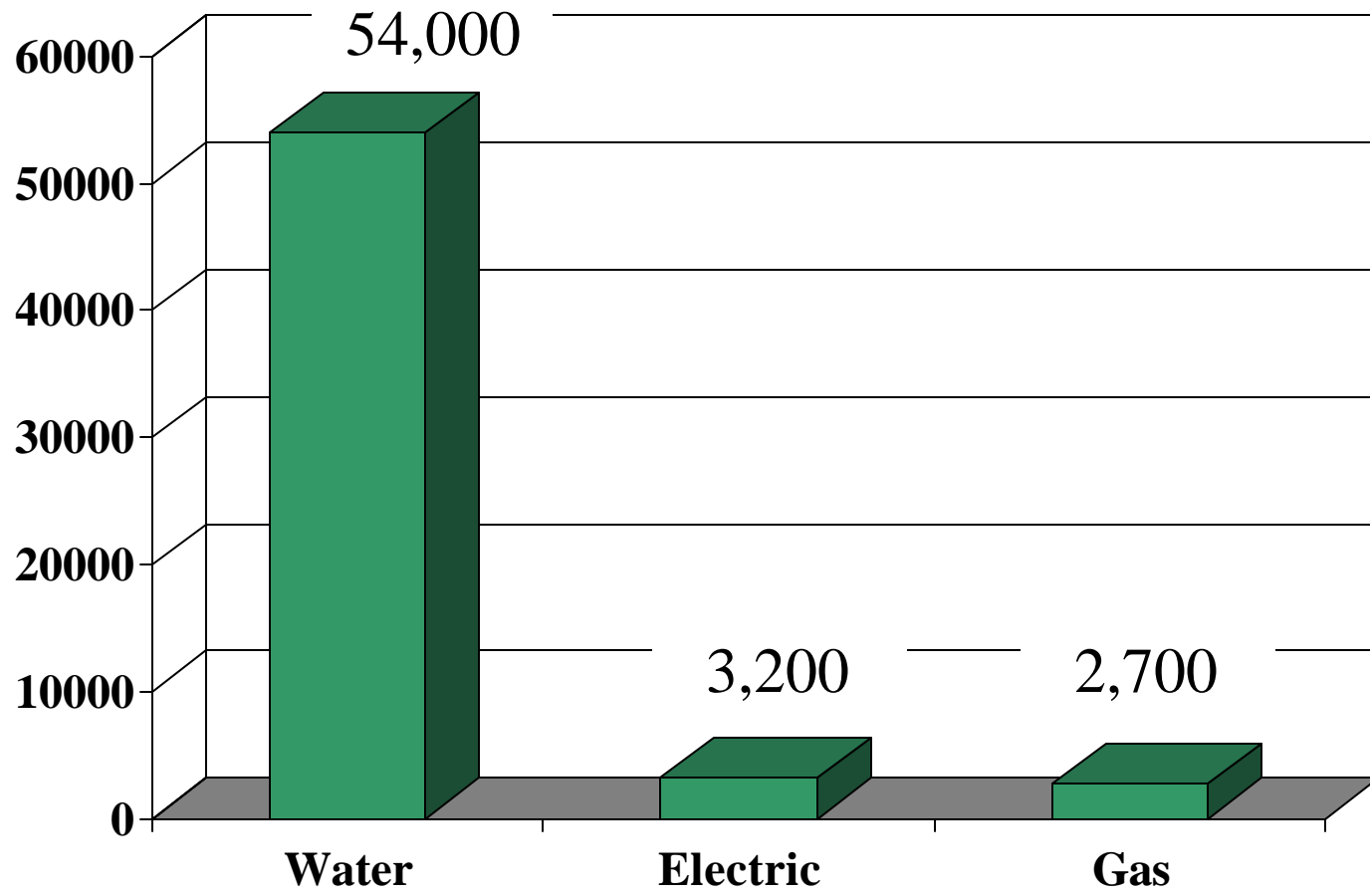
Total 20-Year Need by Category

(in billion January 1999 dollars)

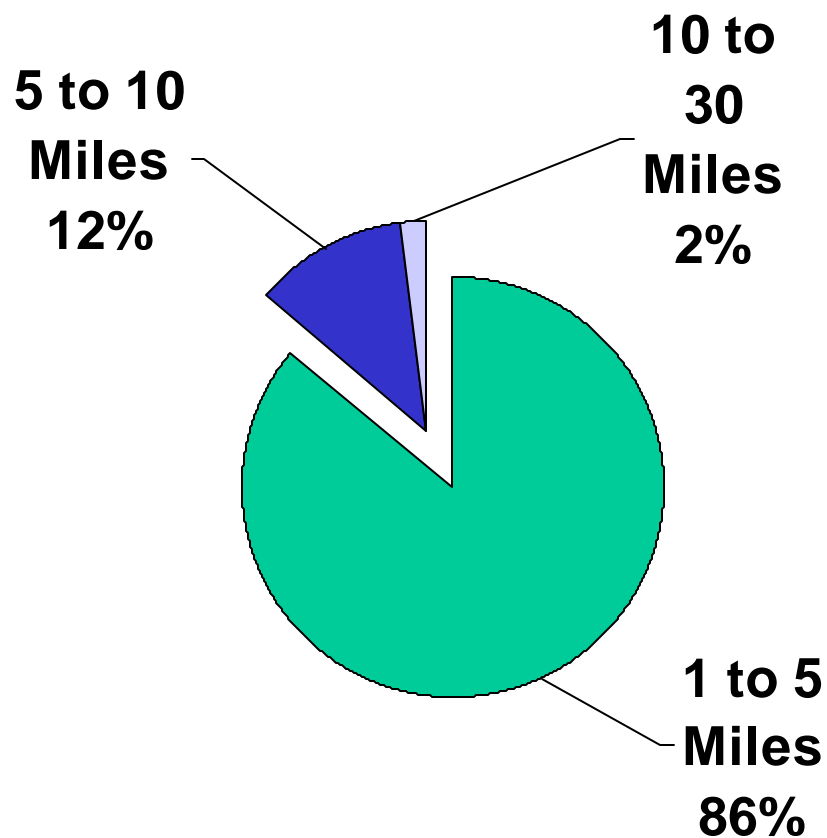


Utility Sectors Compared:

Number of Providers



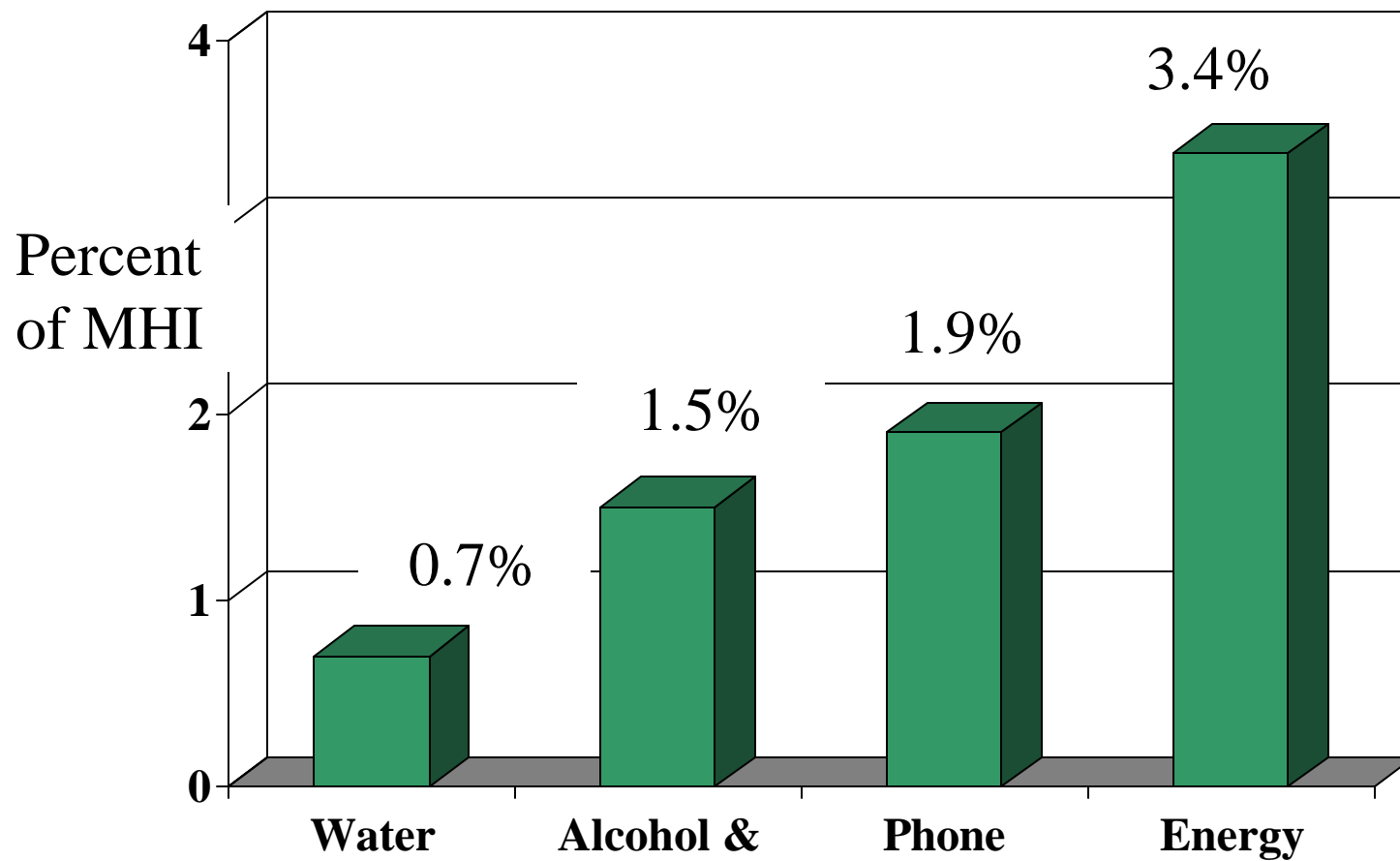
Distance to the Next Closest CWS



- **86% of Small Systems Are within 5 Miles of Another System**
- **100% of Small Systems Are within 20 Miles of Another System**

Weighted Average of 17 States

Household Expenditures Compared



Achieving Economic Efficiency

